of Claim 23 or a pharmaceutically acceptable salt thereof to a human being or an animal.

35. A pharmaceutical composition which comprises, as an active ingredient, a compound of Claim 28 or a pharmaceutically acceptable salt thereof in admixture with pharmaceutically acceptable carriers of excipients.

36. A method for the prophylactic and/or the therapeutic treatment of infectious diseases caused by pathogenic microorganisms which comprises administering a compound of Claim 28 or a pharmaceutically acceptable salt thereof to a human being or an animal.--

SUPPORT FOR THE AMENDMENTS

New Claims 20-36 are supported by original Claims 1-16 and 19. Support for Claim 28 can be found on page 17 of the specification as originally filed. No new matter has been added. Claims 20-36 remain active in the case.

REMARKS

Applicants appreciate the interview granted undersigned counsel in the above-captioned application, wherein it was argued that new Claim 20 is commensurate in scope with the showing of superior results using the claimed compounds, presented in the Declaration under 37 C.F.R. §1.132 filed March 2, 1998, since the compounds encompassed by Claim 20 are homologs of the specific compounds tested. The Examiner agreed to give the arguments presented in a request for reconsideration careful consideration. Applicants appreciate the Examiner's acknowledgment that the specific compounds tested showed unexpected results and would be allowable if presented in independent form.

The present invention relates to cyclic hexapeptide compounds having antimicrobial activity in humans and animals, a process for preparing the compounds, a pharmaceutical

composition containing the compound and a method of using the compounds for the prophylactic or therapeutic treatment of infectious diseases.

The rejection of Claims 1-16 and 19 under 103(a) over Toshiro et al. (EP A 0462531) or Toshiro et al. (US Patent 5,376,634) is respectfully traversed.

Since the disclosure of US 5,376,634 appears to be identical to EP 0 462 531, the following discussion applies to both references.

Toshiro et al. does not disclose Applicant's cyclic hexapeptide. The R_1 substituent on the compounds of Toshiro et al. may be either hydrogen or acyl, whereas in the presently claimed compounds it must be acyl. Toshiro et al. disclose that suitable acyl groups are those listed at column 6, line 30 through column 8, line 5. This encompasses hundreds of compounds. However, none of the acyl groups described is an aroyl substituted with a heterocyclic group, as recited in Claim 23 of the instant application. The only description of R_1 being an aroyl group is at column 7, line 44, but there is no description of the aroyl group being substituted with a heterocyclic group. Nor are there any examples in Toshiro et al. of compounds wherein the R_1 is aroyl substitued with a heterocyclic group. Therefore it is respectfully submitted that independent Claims 23 and 30, wherein R_1 is aroyl substituted with a heterocyclic group and Claims 24-27, 32 and 34, dependent therefrom, are all patentable over Toshiro et al.

Applicants have shown, via the Declaration filed March 2, 1998, the superiority of the presently claimed compounds compared to two of the preferred compounds in Toshiro et al. The Examiner agreed that a claim to those specific compounds would be allowable if presented. Therefore, Applicants have presented Claim 28, which is drawn to examples 16, 20, 21 and 23 from the specification which were shown in the Declaration to have superior

antifungal properties compared to two of the preferred compounds in Toshiro et al. Therefore, Claim 28 and Claims 35 and 36, dependent therefrom are submitted to be patentable over Toshiro et al.

Claim 20 has been limited to four choices for R^1 which are submitted to be representative of the compounds of Examples 16, 20, 21 and 23, shown to have superior antifungal activity. Specifically, R^1 may be: naphthyl(lower)alkenoyl which may have one or more higher alkoxy, which is representative of the compound of Example 21 in which R^1 is naphthyl-C_2-alkenoyl having a C_7-alkoxy group; (C_2-C_6) alkanoyl substituted with naphthyl having higher alkoxy, which is representative of the compound of Example 20 in which R^1 is C_2 alkanoyl substituted with naphthyl having a C_7 alkoxy group; ar(C_2-C_6)alkanoyl substituted with aryl having one or more suitable substituents, which is representative of the compound of Example 16 in which R^1 is phenyl-C_2-alkanoyl substituted with phenyl having C_7 alkoxy; and aroyl substituted with a heterocyclic group which may have one or more suitable substituents, which is representative of the compound of Example 23 in which R^1 is phenoyl substituted with piperazinyl which is substituted with phenyl having a C_6 alkoxy group. The above-described R^1 groups should be considered to be representative of the specific compounds shown in the Declaration since they are homologs, i.e., a family of related compounds, the composition of which varies from member to member by a CH_2 group. Chemists knowing the properties of one member would in general know what to expect in adjacent members. Objective evidence of nonobviousness must be commensurate in scope with the claims which the evidence is offered to support. By the same token, Applicant is not required to test each and every species within the scope of the claims. Rather, patentability is established by a showing of unexpected superiority for representative

compounds within the scope of the claims. Ex parte Winters, 11 USPQ2d 1387 (Bd. Pat. App. & Int. 1988). Applicants submit that the compounds tested are representative of the scope of the compounds recited in Claim 20 since they are homologs. Therefore, it is respectfully requested that the rejection be withdrawn.

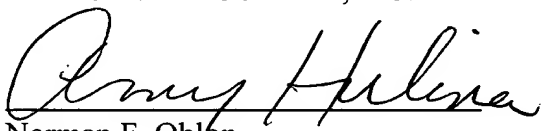
The rejection of Claims 1-19 under the judicially created doctrine of obviousness-type double patenting over the claims of U.S. Patent 5,374,634, to Toshiro et al., is respectfully traversed.

This rejection is traversed based on the showing of unexpectedly superior antifungal properties of the claimed compounds. Additionally, this rejection is improper for Claims 23 and 30 and Claims 24-27, 32 and 34, since there is no disclosure or suggestion that R_1 is an aroyl substituted with a heterocyclic group in the specification or the claims of Toshiro et al. Therefore, it is respectfully requested that this rejection be withdrawn.

Applicants submit that the application is now in condition for allowance, and an early notification of such action is earnestly solicited.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



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Ex parte Winters

U.S. Patent and Trademark Office, Board of Patent Appeals and Interferences
11 USPQ2d 1387

Released April 21, 1989
No. 88-1423

Headnotes

PATENTS

1. Practice and procedure in U.S. Patent and Trademark Office -- Prosecution -- Declaration/Affidavits (§ 110.0913)

Patentability/Validity -- Obviousness -- Relevant prior art (§ 115.0903)

Applicant's refusal to make claim suggested by examiner for purpose of interference constitutes disclaimer of invention covered by suggested claim, and applicant is thus not entitled to claims which do not define patentably over suggested claim, but examiner improperly rejected claims of application, which define subgenus of chemical compounds set forth in suggested claim, as unpatentable over suggested claim, since declaration submitted by applicant rebuts prima facie case of obviousness established by examiner in that declaration, which shows that one of four species embraced by application claims possesses unexpectedly superior results compared with closest prior art compound, is commensurate in scope with claims it is offered to support.

2. Patentability/Validity -- Adequacy of disclosure (§ 115.12)

Examiner properly rejected application claims for failure to comply with written description

requirement of 35 USC 112, since applicant's disclosure does not describe any one of four species in subgenus of chemical compounds covered by claims, either by working example or otherwise, but rather tends to lead away from subgenus of claims, and does not convey to one skilled in art that subgenus possesses unexpectedly superior results shown in declaration submitted by applicant.

Case History and Disposition:

Appeal from examiner's decision refusing to allow claims (Henry R. Jiles, primary examiner; B. Dentz, examiner).

Patent application of Giorgio Winters, serial no. 562,796, for new pharmacologically active pyrazolopyridines, filed Dec. 19, 1983. From decision refusing to allow claims 42 through 44, applicant appeals. Affirmed.

Attorneys:

Jerry D. Voight, of Finnegan, Henderson, Farabow, Garrett & Dunner, Washington, D.C., for appellant.

Judge:

Before Torchin, Winters, and Downey, examiners-in-chief.

Opinion Text

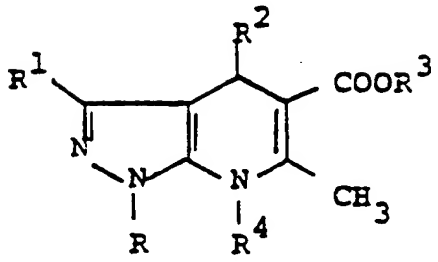
Opinion By:

Winters, examiner-in-chief.

This appeal was taken from the examiner's decision refusing to allow claims 42 through 44, which are all the claims remaining in this application.

Claim 42 is representative.

> 42. A 4,7-dihydropyrazolo[3,4-b]pyridine-5-carboxylic acid derivative of the formula:



wherein R represents a methyl group; R [1]represents a C [4]alkyl group R [2]represents a 2-methylphenyl group; R [3]represents a methyl group; and R [4]represents hydrogen; or a physiologically acceptable salt thereof.

The issues presented for review are:

(1) Whether the examiner correctly rejected claims 42 through 44 under 35 USC 102(g)/103 as unpatentable over suggested claim III set forth in Paper No. 12 dated May 6, 1986; and

(2) Whether the examiner correctly rejected claims 42 through 44 under 35 USC 112, first paragraph, as based on a disclosure which does not contain an adequate written description of the subject matter of these claims.

OPINION

We shall not sustain the examiner's prior art rejection under 35 USC 102(g)/103. We do, however, sustain his rejection under 35 USC 112, first paragraph.

Initially, we note that appellant has not argued the patentability of dependent claims 43 and 44 separately from independent claim 42. Accordingly, we shall treat the former as standing or falling with the latter. See *In re Burckel*, 592 F.2d 1175, 201 USPQ 67 (CCPA 1979).

[1] Considering first the prior art rejection, we note that the examiner suggested claim III for the purpose of interference in Paper No. 12 mailed May 6, 1986. Appellant refused to make the suggested claim, as seen from Paper No. 14, page 5. On these facts, we agree that appellant's refusal to make the suggested claim constitutes a concession that the subject matter of that claim is prior art as to appellant within the meaning of 35 USC 102(g) and 35 USC 103. Otherwise stated, appellant's refusal to make the suggested claim constitutes a disclaimer of the invention covered by that claim and appellant is not entitled to claims which do not define patentably over suggested claim III. See *In re Ogiue*, 517 F.2d 1182, 1186 USPQ 227 (CCPA 1975); *In re Tobias*, 343 F.2d 495, 145 USPQ 217 (CCPA 1965); *In re Fenn*, 315 F.2d 949, 137 USPQ 367 (CCPA 1963); MPEP 2305.01.

Comparing appealed claim 42 with suggested claim III, we find that the former defines a subgenus of compounds falling within the broad genus set forth in the latter. Generally speaking, there is nothing unobvious in choosing "some" among "many" indiscriminately. Some compounds, falling within the scope of a prior art genus, are unpatentable in the absence of a

showing of unexpectedly superior results. See *In re Lemin* , 332 F.2d 839, 141 USPQ 814 (CCPA 1964). So here, the examiner has established a *prima facie* case of obviousness and appellant's subgenus of compounds is unpatentable in the absence of a showing of unexpectedly superior results. Also, see *In re Susi* , 440 F.2d 442, 169 USPQ 423 (CCPA 1971).

Appellant relies on the Dage declaration filed under Rule 132 as rebutting the examiner's *prima facie* case of obviousness. In the declaration, a copy of which is attached to the main brief as Exhibit B, Dage compares a species within the scope of claim 42 with its closest prior art compound for *in vitro* potency as calcium antagonists and *in vivo* hypotensive potency in rats. The declaration establishes that the claimed species (wherein R^1 is 2-methylpropyl and R^2 is 2-methylphenyl) is unexpectedly more potent in both *in vitro* and *in vivo* testing.

With respect to the Dage declaration, the examiner "concedes that the tests remove the *prima facie* obviousness of the compound tested", that is, the species wherein R^1 is 2-methylpropyl and R^2 is 2-methylphenyl. See Paper No. 21 mailed May 19, 1987, page 2. Nevertheless, the examiner concludes that the declaration is insufficient because the objective evidence there presented is not commensurate in scope with claim 42. We disagree.

Certainly, objective evidence of nonobviousness must be commensurate in scope with the claims which the evidence is offered to support. See *In re Boesch* , 617 F.2d 272, 205 USPQ 215 (CCPA 1980); *In re Greenfield* , 571 F.2d 1185, 197 USPQ 227 (CCPA 1978); *In re Tiffin* , 443 F.2d 394, 170 USPQ 88 (CCPA 1971). By the same token, appellant is not required to test each and every species within the scope of the appealed claims and compare same with the closest prior art species. Rather, patentability is established by a showing of unexpected superiority for *representative* compounds within the scope of the appealed claims. What is representative is a factual question which is decided on a case-by-case basis. Here, we find that: (1) the narrow subgenus of compounds defined in claim 42 embraces only four species or a physiologically acceptable salt of those species; (2) the four species defined by claim 42, wherein R^1 represents a C_4 alkyl group, are closely related isomers; and (3) the evidence presented in the Dage declaration irrefutably establishes that one of the claimed species possesses unexpectedly superior results compared with the closest prior art compound. On these facts, we conclude that the declaration showing is adequately representative and rebuts the *prima facie* case of obviousness of claim 42. We note the examiner's speculation that the declaration evidence may reflect only an anomalous "interaction" between the 2-methylpropyl group and the 2-methylphenyl group which causes an unexpected and surprising increase in potency for the claimed species. This speculation, however, is not supported by any facts of record or by sound scientific reasoning.

We turn to the examiner's rejection of claims 42 through 44 under 35 USC 112, first paragraph, as based on a disclosure which fails to provide an adequate written description of the subject matter of these claims.

Initially, we note that the examiner's rejection is based on the lack of written description and that the description requirement is separate and distinct from the enablement requirement also found in 35 USC 112, first paragraph. It is not necessary that the claimed subject matter be described identically, but the disclosure originally filed must convey to those skilled in the art that

applicant had invented the subject matter later claimed. Precisely how close the original description must come to comply with the description requirement of §112 must be determined on a case-by-case basis. The inquiry into whether the description requirement is met is a question of fact. See *In re Wilder* , 736 F.2d 1516, 222 USPQ 369 (Fed. Cir. 1984).

[2] On the particular facts of this case, we agree with the examiner that the subgenus of compounds defined in claim 42 is not described in appellant's original disclosure. We note that claim 42 embraces four species wherein R^1 represents a C 4alkyl group, and the physiologically acceptable salts of those species. But the original disclosure does not describe any of those species either by way of working example or otherwise. There is no support for any of those species *per se* .

Nor are there guidelines in the original disclosure which would lead a person having ordinary skill in the art toward the subgenus of compounds defined in claim 42. On the contrary, the written description in appellant's specification tends to lead away from the subgenus. In this regard, note the preferred group of compounds described in the specification, page 6, wherein the definition of R^1 precludes C 4alkyl. Note also Examples 41 through 52 in the specification, wherein R^1 is a C 4alkyl group but R^2 is never 2-methylphenyl.

The situation is aggravated on this record in view of the Dage declaration showing unexpectedly superior results. Quite clearly, the original specification disclosure does not convey to those skilled in the art that the subgenus of compounds set forth in claim 42 possesses unexpectedly superior results. Compare *Bigham v. Godtfredsen* , ___ F.2d ___, 8 USPQ2d 1266 (Fed. Cir. 1988). On the facts of this case, we hold that claims 42 through 44 did not find adequate written description in appellant's original specification disclosure.

In conclusion, we do not sustain the examiner's prior art rejection of claims 42 through 44. We do, however, sustain the rejection of those claims under 35 USC 112, first paragraph. Accordingly, the examiner's decision refusing to allow claims 42 through 44 is affirmed.

37 CFR 1.136(a) does not apply to the times for taking any subsequent action in connection with this appeal.

AFFIRMED

- End of Case -